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PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

#11 Req. Recon. MP 8/1/03

In re application of

Koji TANIMOTO, et al.

Docket No: Q67208

Appln. No.: 09/987,671

Group Art Unit: 2855

Confirmation No.: 7499

Examiner: Jewel V. THOMPSON

Filed: November 15, 2001

For: THERMOSENSITIVE FLOW RATE DETECTING DEVICE

REQUEST FOR RECONSIDERATION

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In response to the Office Action dated October 23, 2002, reconsideration and allowance of the subject application are respectfully requested. Upon entry of this Request, claims 1-4 are pending in the application. Applicant respectfully submits that the pending claims define patentable subject matter.

As a preliminary matter, Applicant again thanks the Examiner for acknowledging that dependent claims 3 and 4 contain allowable subject matter. However, Applicant respectfully requests the Examiner to hold in abeyance the rewriting of these claims until the Examiner has had the opportunity to reconsider the rejected parent claims in light of the arguments presented below in support of the Applicant's traverse of the rejection.

Claim 1 is rejected under 35 U.S.C. § 102(b) as being anticipated by Tohyama et al. (U.S. Patent No. 6,205,854; hereafter "Tohyama").[1] Claim 2 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Tohyama. Applicant respectfully submits that the claimed invention would not have been anticipated by or rendered obvious in view of Tohyama.

As shown in Figures 1 and 3, Tohyama discloses a conventional temperature control circuit 100 including a bridge circuit including a flow rate detecting heat-sensitive resistor R_H, an atmospheric or ambient temperature detecting heat-sensitive resistor R_K, a flow rate detecting fixed resistor R_M and a temperature compensating fixed resistor R_1, a differential amplifier 101 having input terminals connected to junctions b and f, respectively, of the bridge circuit, a transistor 102 and a DC power source 103 (as is in the case of the conventional heat-sensitive type flow sensor shown in Figure 5). When the voltages at the junctions b and f become equal to each other, the bridge circuit assumes an equilibrium or balanced state, wherein an electric current I_h corresponding to the flow rate of a fluid flows through the flow rate detecting heat-sensitive resistor R_H. The output voltage V_M at the junction b can be given by a product of the current I_h and the resistance value of the resistor R_M, wherein the voltage V_M is used as a flow rate signal. See Tohyama column 1, lines 40 - column 2, line 10; and column 8, lines 40-63.

[1] Applicant notes that Tohyama is not prior art under 35 U.S.C. § 102(b) since Tohyama issued less than one year before the U.S. filing date of the present application. That is, in order to qualify as prior art under 35 U.S.C. § 102(b), a patent or printed publication must have been published "more than one year prior to the date of the application for patent in the United States". However, the present application was filed in the United States on November 15, 2001 while Tohyama issued on March 27, 2001. To this extent, Tohyama may be prior art under 35 U.S.C. § 102(e) but not under 35 U.S.C. § 102(b).

Claim 1 recites, in part, "a heat generating resistor, provided in fluid to be measured, for generating heat by electric power consumed in accordance with a flow rate of the fluid to be measured." Claim 1 further requires "a bridge circuit having said first temperature detecting resistor and said second temperature detecting resistor electrically connected together therein, the bridge circuit being adapted to control a heating current of said heat generating resistor to maintain a constant temperature difference between said first temperature detecting resistor and said second temperature detecting resistor, wherein the flow rate within the fluid to be measured is detected by using the heating current, and wherein said bridge circuit receives a voltage that is proportional to the heating current of said heat generating resistor."

The Examiner asserts that Tohyama discloses a heat generating resistor via the flow rate detecting heat-sensitive resistor R_H. However, Applicant respectfully submits that it is quite clear that Tohyama does not teach or suggest the claimed heat generating resistor or bridge circuit. That is, the flow rate detecting heat-sensitive resistor R_H does not generate heat but rather detects a temperature of the fluid to be measured.

Accordingly, the Examiner is requested to remove the rejection of claim 1 based on Tohyama since the cited reference does not teach or suggest all of the features of the claim.

Claim 2 recites, in part, "a heat generating resistor that is provided in fluid communication with the second temperature detecting resistor." Claim 2 further requires "a differential amplifier connected directly to the bridge circuit, the differential amplifier being adapted to divide a voltage across the heat generating resistor and output the divided voltage to the bridge circuit, wherein the second temperature detecting resistor is maintained at a constant

temperature that is higher than a temperature of the first temperature detecting resistor and the heat generating resistor is maintained at substantially a same temperature as the second temperature detecting resistor." Similar to claim 1, Applicant respectfully submits that it is quite clear that Tohyama does not teach or suggest these features of the claimed invention since Tohyama does not teach or suggest a heat generating resistor.

Further, Applicant notes that the Tohyama patent is assigned to Mitsubishi Denki Kabushiki Kaisha and may be prior art under 35 U.S.C. § 102(e) since the Tohyama patent issued on March 27, 2001 while the present application was filed in the United States on November 15, 2001. Applicant submits that the Tohyama patent and the present application were, at the time the present invention was made, commonly owned by, or subject to an obligation of assignment to Mitsubishi Denki Kabushiki Kaisha.[2]

Accordingly, the Examiner is requested to remove the § 103 rejection of claim 2 based on the Tohyama patent.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the

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[2] Pursuant to §4807 of the new American Inventors Protection Act of 1999, subject matter which was prior art under former 35 U.S.C. §103(c) via §102(e) is disqualified as prior art against a claimed invention if that subject matter and the claimed invention "were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person." The change to §103(c) applies to any patent application filed on or after the date of enactment of November 29, 1999. Applications and references will be considered by the Patent Office to be owned by, or subject to an obligation of assignment to the same person, at the time the invention was made, if the applicant(s) or an attorney or agent of record makes a statement to the effect that the application and ...(footnote continued)

Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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WASHINGTON OFFICE

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PATENT TRADEMARK OFFICE

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Date: July 11, 2003

Attorney Docket No.: Q67208

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the reference were, at the time the invention was made, owned by, or subject to an obligation of assignment to, the same person (MPEP 706.02(l)(2)(II)).